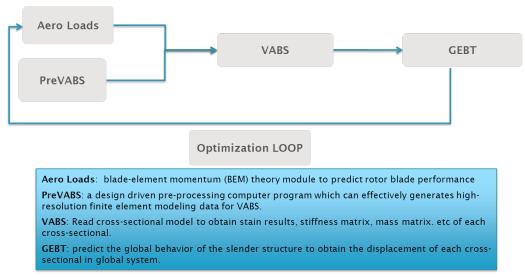




## AnalySwift Partners with Altran to Link VABS with Optimization Code for Wind Turbine Blades

Logan, Utah (USA), December 16, 2013- AnalySwift, LLC, a leading provider of efficient high-fidelity modeling software for aerospace and energy composites and other advanced materials, announced today it has partnered with global leader Altran in the release of Altran's upcoming optimization code for the preliminary design of composite wind turbine blades.



## **Optimization tool architecture**

AnalySwift's VABS and PreVABS software will play a key role in combination with other optimization and mathematical tools developed in-house by Altran as part of their new optimization code. Altran's code, a generalistic tool, is based on aerodynamic and structural calculations. Still under development, it will include an optimization loop to modify structural pre-design. The code will address aerodynamics, structural modeling, and optimization of emerging wind turbine blades. AnalySwift's VABS and PreVABS software will interface with and complement Altran's code.

VABS, now in version 3.7, enables rigorous modeling of complex composite slender structures (commonly called beams), such as wind turbine blades, helicopter rotor blades, propellers, wing sections, and bridges. PreVABS is a design-driven preprocessor to VABS.

"AnalySwift is excited about the continued relationship with Altran, a leader in high-tech engineering consulting," said Allan Wood, President and CEO of AnalySwift. "Researchers and engineers worldwide are actively using VABS for the efficient and accurate modeling of composite slender structures. In addition to its powerful analysis capabilities, VABS is also recognized for helping organizations get products getting to market more quickly, at a lower cost, and with a higher confidence in quality."

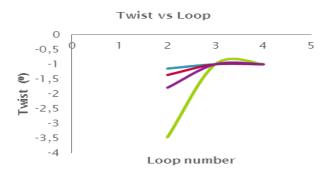
"Due to its versatility, VABS can model beams of any shape and a wide variety of materials," according to Dr. Wenbin Yu, CTO of AnalySwift. "In fact, VABS can deal not only with arbitrary layups, but also with isotropic, orthotropic, and general anisotropic materials. As such, VABS delivers the best available combination of accuracy, efficiency, and versatility."

The unique technology underlying VABS renders it the first truly efficient high-fidelity modeling tool for composite slender structures, saving users many orders of magnitude in computing time relative to





more complex and time-consuming 3D finite element analyses (FEA), without a loss of accuracy. Instead of choosing between accuracy and efficiency; engineers can now confidently design and analyze real structures with complex microstructures. For instance, structures as complex as real composite rotor blades with hundreds of layers can be easily handled by a laptop computer. Analysis time can typically be reduced from several hours to just seconds.



Aero-structural coupling behavior check for different configurations

## **About AnalySwift**

AnalySwift, LLC, is a leading provider of efficient high-fidelity design and analysis software for composite materials and structures, particularly cutting-edge technology for structural modeling and micromechanics modeling. AnalySwift's revolutionary solutions are based on a powerful mathematical approach, providing customers a competitive advantage through dramatic reductions in engineering time, without sacrificing accuracy in multiphysics modeling. Utilizing technology licensed from Utah State University, as well as software developed at Georgia Institute of Technology, AnalySwift offers the best compromise between efficiency, accuracy, and versatility for multiphysics analysis of composite materials and structures. The technology has been supported, in part, by US Army, US National Science Foundation, US Air Force, Utah Science Technology and Research Initiative (USTAR), and industry. More information about AnalySwift can be found on the web at <a href="www.analyswift.com">www.analyswift.com</a>. For more information, contact Allan Wood, President and CEO of AnalySwift, 801-599-5879 or email allanwood@analyswift.com.

## **About Altran**

As a global leader in innovation and high-tech engineering consulting, Altran accompanies its clients in the creation and development of their new products and services. Altran's Innovation Makers have been providing services for thirty years to key players in the Aerospace & Defense, Automotive, Energy, Railways, Finance, Life Sciences and Telecoms sectors. Covering every stage of project development from strategic planning to manufacturing and operation, Altran's offers capitalise on the Group's technological know-how in four key areas: Lifecycle Experience, Mechanical Engineering, Intelligent Systems and Information Systems. In 2012, the Group generated revenues of €1,456m. Altran now has a staff of 20,000 employees in more than 20 countries. http://www.altran.com